

## ABSTRACT

A method of manufacturing a semiconductor device, comprises: forming a semiconductor element in a semiconductor active region, and 5 calculating the generation rate of electron hole pairs generated due to impact ionization caused in the semiconductor element; calculating a volume integral of the generation rate at least in an area where the impact ionization is caused; evaluating time - dependent degradations of electrical characteristics of the semiconductor element on the basis of the volume 10 integral; and manufacturing a semiconductor device on the basis of the evaluation.